

1. WV DHSEM will review their submitted applications and prioritize infrastructure projects before housing.
2. Housing will still be addressed through HMGP, but all applicants will be given the opportunity to apply for housing assistance through the CDBG-DR program.
3. WV DHSEM and WV DOC will coordinate to ensure that all applicants are served by the program that best fits their situation and needs.
4. WV DHSEM and WV DOC will continue to meet and discuss coordination of the two programs and the CDBG-DR match for the HMGP program.

V. Reallocation of CDBG-DR Funds

A large portion of the meeting revolved around the HUD CDBG-DR program and how it can strategically support recovery. Currently, over \$100 million is allocated to address the unmet housing need in the impacted areas. Through efforts by VOAD and other volunteer groups, it is estimated that over 1,000 homes have been rebuilt or rehabbed since June 2016. Participants of the session questioned whether there was \$100 million left in unmet housing needs, or if some of the funding should be reallocated to support infrastructure and economic development. WV DOC agreed to work with HUD to determine the steps and requirements to ultimately reallocate funds once the housing need has been fully met. HUD has outlined the necessary steps to reallocate the funds so that the state can address other unmet needs:

1. If the State wishes to revise their action plan amendment to eliminate or reduce housing activity, they will need to provide revised unmet need data and strong evidence that unmet disaster related Low/Moderate Income (LMI) housing needs have been met.
2. The State will also need to provide data to support unmet needs for proposed replacement activities (e.g. infrastructure or economic development projects). The 11/21/16 Federal Register notice says that given the large damage to housing from the disaster, the State should focus on unmet housing need, but it does allow for States to allocate funds to infrastructure or economic development.
3. If the state wishes to undertake infrastructure or economic development activities, they must do the following:
 - a. Amend their action plan
 - b. Provide data for unmet infrastructure or economic development needs
 - c. Provide information about how unmet housing needs have been met, or how infrastructure or economic development activities will contribute to the restoration of housing and long-term recovery in the most impacted and distressed communities.

VI. Proposed Role of Action Officers

The senior officials agreed that the action officers will be the point of contact and participate in subsequent meetings regarding the development and implementation of the priorities/strategies developed at the session. The officers have a working knowledge of the agency's programs, resources and authorities and will be available to meet and represent their respective agency through implementation. Federal partners will serve in an advisory/consulting role as needed during the implementation process. During the first session, there was consensus that the action officers should address the following specific tasks:

1. Identify agency programs, resources and authorities to support disaster recovery.
2. Address priority areas where consensus was not gained and provide recommendations to senior officials.
3. Identify additional resources and technical assistance that can be offered to disaster impacted communities.
4. Identify additional coordination opportunities within their respective departments and network.
5. Create the framework and strategies for an action plan related to recovery efforts.

VIII. Proposed Next Steps

Since the session, there have been multiple meetings of the Action Officers and discussions regarding implementation of the established priorities and principles. These discussions have evolved to include roles and responsibilities of the SRO and future meetings will work to simultaneously address both initiatives. The key focus will be to ensure that the disaster funds from 2016 are strategically expended, while also establishing the SRO and championing resiliency across all sectors of the state. To do so, stakeholders will need to continue to meet on a regular basis and ensure that a strong focus and commitment is made to resiliency. Additionally:

1. Reconvene a follow-up "session" to the 11/7/2017 Session
2. Merge the roles and responsibilities of action officers with committee assignments for SRO board.
3. Continue to meet at the action officer level to implement decisions made by senior officials.
4. Assist with the creation of the SRO charter, framework and work plan.
5. Bring recommendations to the senior officials and SRO board for review and approval.
6. Continue to meet until all funds from 2016 are allocated and the SRO is fully established.

Governor's Flood Recovery and Alliance Session – Meeting Notes – 1st Session

Date: November 7, 2017

Time: 9:00 a.m. – 11:12 a.m.

Attendees: See Sign-in Sheet

9:17 a.m.

- The meeting kicked off with Governor Jim Justice addressing the audience. The Governor discussed the promising future of West Virginia with new development and job opportunities.

9:38 a.m.

- Mr. Kevin Snyder, Federal Disaster Recovery Coordinator and Director of the West Virginia Recovery Office, provided background on the various funding sources available to the State of West Virginia through FEMA's Individual Assistance, Public Assistance and Hazard Mitigation Grant programs and HUD's Community Development Block Grant – Disaster Recovery (CDBG-DR) allocations.
- Also spoke of the establishment and stand-up of the West Virginia State Resiliency Office (SRO) and the role the SRO could play in coordinating disaster recovery and enhancing community resiliency.
- Spoke of this time being an opportunity to move forward with a unified vision and strategy.

9:54 a.m.

- Ms. Inga Watkins was introduced as the meeting facilitator.
- Ms. Watkins asked the group to first discuss the priorities for the current and future federal funding provided to the State as a result of the 2016 floods.
- The initial list of priority areas includes (these areas were inferred based on currently planned funding allocations):
 1. Housing
 2. Infrastructure
 3. Economic Development
 4. Disaster Planning/Preparedness
- Ms. Watkins opened the conversation by asking the group if they could come to a consensus on what the State's priorities should be.
- General Hoyer proposed adding mitigation/resilience to the Disaster Planning/Preparedness priority item. He commented that "if we don't include mitigation in what we do, we are just going to keep having the same issues we are already facing."
- After additional affirmation from others, Mitigation was then added to the Planning/Preparedness priority item.
- Jimmy Gianato mentioned that the planning and preparedness priority may not necessarily be a priority but program requirements for HMGP for State and Local Hazard Mitigation Plans.
- *The group agreed that planning and preparedness should not need be a separate priority.*
- MaryAnn Tierney suggested that Mitigation/Resiliency not be an individual priority but a guiding principle that would influence all of the priorities the group set for not only the current funding but for future disasters.

- Several participants indicated that you can rebuild houses and you can rebuild/mitigate infrastructure but something would have to be done about jobs and the economy to keep people in West Virginia.
- *The group agreed that the mitigation/resiliency and job creation would be guiding principles.*
- *These two principles should be included as “decision points” in determining whether the state will fund a project or not.*
- Ms. Watkins asked the group to identify any other potential priorities but none were added to the list.
- *The group came to a consensus on the following three priority areas (in no particular order):*
 - *Housing*
 - *Infrastructure*
 - *Economic Development*
- Ms. Watkins then asked the group if there could be a consensus on ranking the three priorities.
- Conversation was started by General Hoyer who indicated that he did not feel that housing was any longer the top priority. He indicated that through the State VOAD and other faith-based groups, at least half of the 2,000 homes damaged in June 2016 had been repaired/rebuilt. Therefore housing was no longer the top priority. There was agreement with this from Mr. Farkas, Mr. Rogers, and others who voiced concern that if infrastructure was not the first priority the main issues facing West Virginia would not be addressed.
 - Mr. Farkas mentioned that if there was a way to focus on larger, more “cross-border” type projects, the state would really start to address flooding issues.
 - It was also mentioned that the state “gets in its own way with laws that are passed”. An example was put forward of an unnamed community that has the resources to maintain a nearby waterway that causes flooding due to debris build-up but they would not do the maintenance work on the waterway because they were afraid of violating a state law.
 - The representative from the Department of Highways indicated they have funding for highways but there was not really a mechanism for “looking forward” for their projects at this time indicating that they worked project by project.
- After further discussion confirming that infrastructure would be the top priority, Mr. Rogers indicated that he understood that each program had certain requirements but he asked if there was a way to redistribute the \$106 million in CDBG-DR to reallocate some of those funds to other priority areas.
- Julie Alston indicated that it is possible but that it would not be an easy move due to programmatic requirements set by HUD and the Federal Register Notice, which dictates that a certain percentage of that funding be allocated directly to housing and that funding that does not go directly to housing still has to tie back into housing.
- Julie Alston also indicated that the state would have to demonstrate that the unmet housing needs in the state, which was the basis for the CDBG-DR request, had been met. Something not easily done as the state just submitted a substantial amendment to their Administrative Plan that was still based on a significant unmet housing need.
- Ms. Alston was asked what documentation at what level of granularity would be needed to satisfy HUD to reallocate some of the CDBG-DR funding. She indicated that she would have to research that with the HUD Regional Office to confirm.
- *There was a consensus from the group that the Department of Commerce should work with HUD to determine what would be required (i.e. what documentation and what level of granularity) would be required to redistribute the current CDBG-DR funds to other priority areas.*

- Based on this conversation, General Hoyer suggested that Infrastructure should be the top priority. The group agreed.
- Mr. Rogers suggested that job creation be the second priority to which the group agreed.
- Housing, based on early conversation was discussed as the third priority.
- *The group came to the consensus that the following are the priorities ranked from first to third:*
 1. *Infrastructure*
 2. *Economic Development*
 3. *Housing*
- Ms. Watkins then indicated that time had run out for this meeting. MaryAnn Tierney suggested that a second meeting be held around mid-December. The focus would be to determine the status of the amendment to the CDBG-DR Action Plan.
- Ms. Watkins then provided information on the role of the Action Officers and asked the group to consider these roles and identify any additions or edits needed. These roles could be the first agenda item for the next meeting. The roles that were listed included:
 1. Identify agency programs, resources and authorities to support disaster recovery.
 2. Address priority areas where consensus was not gained and provide recommendations to senior officials.
 3. Identify additional resources and technical assistance that can be offered to disaster impacted communities.
 4. Identify additional coordination opportunities within department and network.
 5. Create the framework and strategies for an action plan related to recovery efforts.

11:12 a.m.

- Meeting adjourned

GOVERNOR'S FLOOD RECOVERY & ALLIANCE SESSION



SRO Workgroup Meeting December 14, 2017 AGENDA

10:00 AM

Welcome & Introductions

Draft SRO Charter and Framework

Discussion/Review from Governor's Flood Recovery & Alliance Session

Update on SRO Legislative Report

Next Steps

Noon

Adjournment

What Is a Project Charter?

A Project Charter provides a big picture overview of the project and often does double-duty as the business case. According to the Project Management Institute, the organization that puts out the Project Management Body of Knowledge (PMBOK), a project charter organizes and documents a project's needs and expected outcomes. This resource helps provide a foundation for basing project decisions and ensuring they are in line with company goals. As such, it should include success metrics, how to accomplish the project, key players, and goals. It's imperative to work with team members to help define these attributes before getting started.

Essential Elements of a Project Charter

Depending on your industry, you may call a project charter a project definition report or a project statement. While they all have similar elements, you don't have to include every item for each project charter you create. Remember, the project charter provides a high-level description of the business need and useful information to get the project approved.

Here's what to include in your project charter:

- **Title:** A descriptive title of the project should be at the top of your project charter. For example, "Marketing Campaign" doesn't say much. However, a title like "Social Media Marketing Campaign to Increase Awareness of New Product" informs readers about the type of marketing campaign and why you're starting the project.
- **Brief Description:** Include a few sentences that explain why you want to do this project and what you hope to accomplish. Include the business need it will fulfill and how this project is in line with existing company goals or ongoing work happening within the organization.
- **Background:** Provide information that explains how the project came to be. The background can also be part of the brief description. For example, if the project charter is for a technology update, you will have already included background information on the need in the brief description.
- **Goals/Deliverables:** This is a high-level statement of what you hope to accomplish with this project. Deliverables are sometimes separate, but it can be part of the goals section since it is what you plan to accomplish. For example, a goal might be to create a new web app. The deliverable would be to create a new app with three key features.

- **Scope:** This answers the question, “What is being produced by the project?” Provide an overview of services, products, or results that you plan to develop. It can also be useful to include what is “out of scope” for this project. Defining what’s out of scope early on can help keep a project on track down the road.
- **Impact on Other Business Systems and Units:** Also referred to as resources, this describes what is required to accomplish the project. It outlines how many resources and what support will be needed. Resources can include things like work from other departments, contractors, and teams within the company.
- **Stakeholders:** The stakeholders are the people who you’ve been working with to create the project charter. For example, the sponsor has a project idea, but requires assistance from people in other departments or even an outside vendor to get it accomplished. Before writing the project charter, the sponsor has already met with stakeholders to get their input. Note: The key stakeholders are not necessarily who will approve the project, but they will likely be affected by the project.
- **Roles and Responsibilities:** This covers who is going to do what and identifies the responsibilities of the team. For example, the project manager would be responsible for hitting milestones on time. Identifying roles at the onset is useful for setting expectations and letting people know what is required.
- **Milestones:** An overview of the project schedule, milestones define significant aspects within the project such as phases, stages, and decision making.
- **Budget:** How much is the project going to cost in terms of finances, human resources, and materials? Budget can also specify the source of funding. Note: sometimes this information has already been estimated in the business case.
- **Constraints, Assumptions, Dependencies, and Risks:** Create a section for an initial assessment of known risks that could affect the project’s outcome. It includes factors that are known to be true, but will be evaluated in more detail during the project planning phase. It also takes into consideration existing constraints and dependencies that could change the project’s scope. For example, you may need a specific team to help complete the project, but they are currently working on another project.
- **Success Measurements/ROI:** Establish how you will define project success. Metrics should include what’s important to the stakeholders and how it fits into strategic business goals.
- **Project Approval:** This is the “sign on the dotted line” section. Depending on the type of project, it typically includes a signature space for the project sponsor, a client, and project manager.

Six Sigma Project Charter Guidelines

A project charter is one of the first steps in any Six Sigma project. As part of the Define phase of Define, Measure, Analyze, Improve, Control (DMAIC), it is essential to project success. It's an agreement between the Six Sigma team and management. The Six Sigma Project Charter has similar guidelines as those mentioned above, but requires a bit more detail.

Here's an overview what to include in a Six Sigma Project Charter:

- **Title:** A descriptive name for the project.
- **Black Belt/Green Belt:** Identify who is leading the project.
- **Mentor/Master Black Belt:** Who is the project leader's resource? This is the person the Black Belt/Green Belt can turn to when issues or questions about the project arise.
- **Role of Champion:** The Champion provides strategy and helps facilitate Six Sigma activities. He or she can be part of creating the business case, setting deliverables, assigning the right people to the task, and signing off on the project charter.
- **Start Date:** The date the project leader begins working on the project.
- **Anticipated End Date:** When will the project be complete? The Mentor or Master Black Belt typically determines the project end date and considers current business conditions when making this decision.
- **Business Case:** Describes the issue, why the company should do the project, and its overall effect on the organization. In addition to explaining why the project should be done now, it also covers consequences of delaying the project.
- **Problem Statement:** What are the issues that the Six Sigma team will address? This statement provides a clear definition of the problem including impact, where it occurs, scope, and critical-to-quality elements. The statement should be concise and easily understood by members of the organization.
- **Goal Statement:** This defines project targets that need to be met to realize the project's purpose. When creating this statement, employ the SMART method.
- **Project Scope:** Use the process mapping technique to define the scope. Identify budget limits, decision makers, the objective, and the team's area of influence.

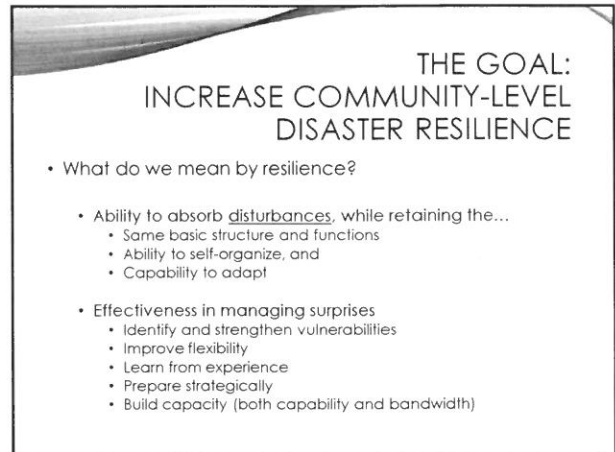
- **Critical Success Factors:** What do you need to successfully complete the project? Consider things like financial and time constraints, available resources, support, who will clear roadblocks, and the guide and coach for the team.
- **Impact on Stakeholders:** Identify the individuals who are affected by the project and have a vested interest in the outcome. Also, define how the team will communicate with stakeholders when necessary.
- **Project Milestones:** The project Champion sets project milestones, and they should create a timeline that accounts for the DMAIC stages.
- **Project Vision:** What are the expectations of the project and how will the organization measure success? This section is a good place to identify potential failure areas.
- **Expected Financial Benefits:** Define the budget impacts and cost avoidance, as well as the anticipated savings that can come from completing the project.

Avoid Pitfalls with a Project Charter

A project charter defines the vision, goals, and objectives of the project. It gets everyone on the same page early on and establishes stakeholder buy-in, roles and responsibilities, and measurable impact.

However, if the charter isn't initially completed correctly, issues can arise. Something as seemingly simple as an unclear title can lead to problems down the road. Make sure to correctly select the right time, provide an accurate timeline, and write a clear goal statement that's linked to company strategy.

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WHAT DO WE NEED TO CONSIDER?

Functions	Assets (Illustrative Example)	People & Organizations (examples)	Rules & Ways to Get Things Done (examples and assets)
Public safety	Police and Fire stations and equipment	Public Sector: • State, county, and local government agencies • Federal agencies Trade & Professional Organizations: • Public officials (e.g., county commissioners) • Technical professionals (e.g., planners, hydrologists, emergency management) • Businesses (e.g., Ch. of Commerce)	Governance: • Who is involved in decision-making • What processes are used • What controls are applied • Forum/agent of review/recourse • Process consistency/robustness • Degree of transparency
Commerce	Businesses Banks and credit unions Post offices and vehicles	Non-profit Advocacy Groups: • Environmental (watershed protection) • Health & Wellness • Education & Literacy	Legal Rights and Limitations: • Law, Regulations, and Ordinances • Guidance • Enforcement mechanisms • Sanctions for non-compliance • Incentives
Health care	Hospitals and clinics	Public Charities: • Red Cross, United Way • Homeless shelters	Communication: • Legal rights to information • Processes used to disseminate information • Timeliness and equal access • Flow, one-way or multi-directional
Education	Schools	Private Sector: • Major employers • Small businesses • Service professions (e.g., law, accounting)	Culture: • Defined, thriving, or agreed • Optimistic, pessimistic, or apathetic • Set-focused or collaborative • Open and inclusive or not • Forward- or backward-looking • Seeking or content with existing knowledge
Communication	Telephone and cable lines Cell towers and networks Assisted living communities	Faith-based Organizations: • Houses of Worship • Affiliated organizations	
Elder care	Nursing homes Churches and other houses of worship	Citizens: • People & Families • Community associations • Neighborhoods	
Spiritual needs	Power plants Transmission and distribution lines Booster stations		
Electric power	Roads and bridges Rail lines		
Transportation	Housing Employment Economic stability Civil institutions		
Family life			
Community identity			

HOW DO WE MAKE COMMUNITIES MORE RESILIENT? APPLY THIS FRAMEWORK:

- Functions and Assets
 - Improve flexibility
 - Build redundancy, modularity
 - Accept safe failure
- People and Organizations
 - Raise awareness
 - Build capability *strategically*
 - Deepen and broaden the bench
 - Increase communication, collaboration & cooperation
- Rules
 - Ensure community involvement
 - Clarify trade-offs and decision rules
 - Improve transparency
 - Invest in the future

SUGGESTED PRINCIPLES FOR APPLYING THE FRAMEWORK

- Develop and leverage state-wide assets
- Apply Framework at the watershed level, but focus on:
 - Capacity-building in each community
 - Coordination among communities
- Ensure resilience of critical functions
- Identify and capture quick wins
- Listen, learn, experiment, adapt, and improve

DEVELOP STATE-WIDE RESOURCES

Initiative	Likely Participants	Expected Outputs	Expected Outcomes	Contribution to Increased Resilience
Create WV Disaster Resilience Council	WV Governor's Office, DEP, DHS, DOH, DoC, Conservation Agency, others	<ul style="list-style-type: none"> ➤ Council Charter ➤ Regular meeting minutes ➤ Unified WV disaster resilience principles and policies ➤ Identified state-wide priorities 	<ul style="list-style-type: none"> ➤ Clarity/consensus of disaster resilience goals and priorities ➤ Improved inter-agency coordination ➤ More effective disaster response and recovery ➤ Improved efficiency and cost-effectiveness ➤ Enhanced credibility 	<ul style="list-style-type: none"> ➤ Continuous attention to disaster resilience ➤ Proactive behavior ➤ Greater flexibility ➤ Improved response time
Leverage the 2004 WV Flood Plan and Create a Resilience Plan that is Immediately Actionable	DEP, DHS, DOH, DoC, WV HIC, Conservation Agency, community and other stakeholders	<ul style="list-style-type: none"> ➤ Newly identified resources ➤ Add language on resilience ➤ Defined roles and responsibilities 	<ul style="list-style-type: none"> ➤ Widely shared understanding of greatest threats and opportunities for improvement ➤ Clarity regarding actions needed to address highest priorities ➤ Defined roles and responsibilities 	<ul style="list-style-type: none"> ➤ Greater attention to systemic risks and mitigating measures ➤ Reduced disaster frequency and severity ➤ Improved responsiveness ➤ More efficient use of resources
Promote WV Development Office as a Business, Industry and government (non-consumer) hub for disaster information resources; create new Office of Economic Resilience	WV Governor's Office, DoC/DO—populate with information from DEP, DHS, DOH, Conservation Agency, others	<ul style="list-style-type: none"> ➤ Mission Statement ➤ Web site and database ➤ Curated collections of documents, maps, lists, on-line tools, and other resources 	<ul style="list-style-type: none"> ➤ Greater community-level capacity ➤ Improved inter-agency coordination ➤ More optimal use of state-level resources ➤ Improved efficiency and cost-effectiveness ➤ More effective disaster response and recovery 	<ul style="list-style-type: none"> ➤ Enhanced local self-reliance ➤ Proactive behavior ➤ Improved responsiveness ➤ Reduced severity of impacts ➤ More rapid recovery

DEVELOP STATE-WIDE RESOURCES

Initiative	Likely Participants	Expected Outputs	Expected Outcomes	Contribution to Increased Resilience
Develop Debris Management Plan	WV NGWV DEC, DOH	<ul style="list-style-type: none"> Approved Plan Expected roles and coordination of agencies across watersheds, counties, and cities/towns 	<ul style="list-style-type: none"> Less debris in rivers and streams (steady state) More rapid clearance of debris before, during, and after storm events More effective use of state, county, and local resources Fewer road closures and delays 	<ul style="list-style-type: none"> Reduced flood severity Less property damage Fewer and shorter disaster cleanup delays More efficient use of people and equipment Lower public sector costs Less disruption to commercial activity and local movement
Develop and provide disaster resilience training through WV Association of Counties' Leadership Academy	WV DEP, DEC, DOH, WV Association of Counties	<ul style="list-style-type: none"> Training materials Participant feedback 	<ul style="list-style-type: none"> Improved capacity at county level throughout WV More effective use of state, county, and local resources More detailed understanding of conditions across the state 	<ul style="list-style-type: none"> Enhanced local self-reliance More proactive behavior Improved responsiveness Reduced severity of impacts Improved recovery time
Engage with ~30 WV watershed associations to promote local disaster resilience planning	WV DEP, WVU Land Use and Sustainable Law Clinic	Watershed-level disaster resilience plans	<ul style="list-style-type: none"> Increased local capacity in participating watersheds More effective use of state, county, and local resources More extensive collaboration within and across watersheds 	<ul style="list-style-type: none"> Enhanced local self-reliance More proactive behavior Improved responsiveness Reduced severity of impacts Improved recovery time

DEVELOP STATE-WIDE RESOURCES

Initiative	Likely Participants	Expected Outputs	Expected Outcomes	Contribution to Increased Resilience
Develop arrangements to draw upon assistance from the WV ANG as a force multiplier to respond to future disaster events	WV NG, DEP, DOH, DoC, DEC	<ul style="list-style-type: none"> Memorandum of Understanding Principles and guidelines for ANG assistance 	<ul style="list-style-type: none"> Improved disaster response effectiveness Greater efficiency Lower overall cost 	<ul style="list-style-type: none"> Reduced scope and severity of disaster impact Improved recovery time
Establish arrangements to utilize WV DEP, other agencies and entities	WV DEP, other agencies and entities	<ul style="list-style-type: none"> Memoranda of Understanding Model contract RFP/RFPQ language 	<ul style="list-style-type: none"> Easier and faster access to disaster mitigation and recovery resources Improved efficiency and lower cost 	<ul style="list-style-type: none"> Reduced scope and severity of disaster impact Improved recovery time

RECOMMENDED PATH FORWARD

- Develop state-wide resources
 - Draft and issue Executive Order
 - Create Council
 - Empower Disaster Resilience Office
 - Leverage the 2004 Flood Plan and create a Resiliency Plan that better matches the level of available resources with the concepts of redundancy, flood management etc....
- Organize and empower small group to draft Debris Management Plan (in progress)
- Engage with state-wide and local nonprofits to develop disaster resilience training and planning activities
- Draft and execute MOUs/MOAs, draft RFPs, contract terms, and other documents to facilitate sharing of state personnel, contract vehicles, and other resources

RECOMMENDED PATH FORWARD

- Identify and characterize (resilience, vulnerability) communities within two selected watersheds (Elk River, Cherry River)
- Identify potential community representatives
- Further develop and make refinements to plans for Phases II and III (customize and pilot test the disaster resilience framework)
 - Compile and incorporate community-level information
 - Identify additional stakeholders
 - Locate and engage with potential sponsors
 - Seek and secure funding

DISCUSSION

- Reactions?
- Next steps?

A DISASTER RESILIENCE FRAMEWORK FOR WEST VIRGINIA COMMUNITIES

Institute for Local Innovations
March 17, 2017

PROJECT HISTORY

- Floods of 2016
- WVDEP Interest in a More Resilient Future
- Institute for Local Innovation granted resources to perform
 - **Phase I—Fact Finding, Assessment, and Planning**
 - Define the Preliminary WVA Resilience Framework (10/16)
 - Convene a stakeholder dialogue to gain feedback (11/16)
 - Refine WVA Resilience Framework and leverage existing and planned activities
 - Present and solicit feedback
 - Identify pilot communities for testing of WVA Resilience Framework in later phases.
- With additional support:
 - **Phase II - Stakeholder Engagement and Pilot Testing of the Framework**
 - **Phase III - Statewide Application**

THE GOAL: INCREASE COMMUNITY-LEVEL DISASTER RESILIENCE

- What do we mean by resilience?
 - Ability to absorb disturbances, while retaining the...
 - Same basic structure and functions
 - Ability to self-organize, and
 - Capability to adapt
 - Effectiveness in managing surprises
 - Identify and strengthen vulnerabilities
 - Improve flexibility
 - Learn from experience
 - Prepare strategically
 - Build capacity (both capability and bandwidth)

HOW WILL WE KNOW WHEN WE ARE MORE RESILIENT?

- More advance notice of possible disaster events
- Greater ability to take steps *in the moment* to protect people and property
- Reduced disaster severity (e.g., lower peak flood levels)
- Fewer or no fatalities or serious injuries
- Less property damage
- Little or no interruption of vital services (e.g., power, water, transport, communications)
- Reduced disruption to regular community activities (e.g., business and school operations, deliveries, local travel)
- Minimal displacement of family homes, businesses, schools, or local institutions
- Rapid recovery from disaster events with no loss of important community functions or relationships

WHAT DO WE NEED TO CONSIDER?

Systems

- Functions - services that people need
- Assets - things that help deliver the services
- The vital things that often break in a disaster

Agents

- People
- Organizations
- Identity groups
- The actors who maintain functions and assets - or don't

Legal and Cultural Norms

- Laws
- Regulations & Standards
- Processes
- Customs
- How things really get done - and what may stand in the way

WHAT DO WE NEED TO CONSIDER?

Functions	Assets (illustrative sample)
Public safety	<ul style="list-style-type: none"> • Police and Fire stations, and equipment
Commerce	<ul style="list-style-type: none"> • Businesses • Banks and credit unions • Post offices and vehicles
Health care	<ul style="list-style-type: none"> • Hospitals and clinics
Education	<ul style="list-style-type: none"> • Schools
Communications	<ul style="list-style-type: none"> • Telephone and cable lines • Cell towers and networks
Elder care	<ul style="list-style-type: none"> • Assisted living communities • Nursing homes
Spiritual needs	<ul style="list-style-type: none"> • Churches and other houses of worship
Utilities (electric power, gas, water & sewer)	<ul style="list-style-type: none"> • Power plants • Transmission and distribution lines • Pipes, pumps, and valves
Transportation	<ul style="list-style-type: none"> • Roads and bridges • Rail lines
Family life	<ul style="list-style-type: none"> • Housing • Employment
Community identity	<ul style="list-style-type: none"> • Economic stability • Civic institutions

People & Organizations (examples)

Public Sector: <ul style="list-style-type: none"> • State, county, and local government agencies • Federal agencies
Trade & Professional Organizations: <ul style="list-style-type: none"> • Public officials (e.g., county commissioners) • Technical professionals (e.g., planners, hydrologists, emergency managers) • Businesses (e.g., Ch. of Commerce)
Non-profit Advocacy Groups: <ul style="list-style-type: none"> • Environmental (watershed protection) • Health & wellness • Education & literacy
Public Charities: <ul style="list-style-type: none"> • Red Cross, United Way • Homeless shelters
Private Sector: <ul style="list-style-type: none"> • Major employers • Small businesses • Service professions (e.g., law, accounting)
Faith-based Organizations: <ul style="list-style-type: none"> • Houses of Worship • Affiliated organizations
Citizens: <ul style="list-style-type: none"> • People & Families • Community associations • Neighborhoods

Rules & Ways to Get Things Done (examples and issues)

Governance: <ul style="list-style-type: none"> • Who is involved in decision-making • What processes are used • What controls are applied • Form/extent of review or recourse • Process consistency/reliability • Degree of transparency
Legal Rights and Limitations: <ul style="list-style-type: none"> • Laws, regulations, and ordinances • Guidance • Enforcement mechanisms • Sanctions for non-compliance • Incentives
Communication: <ul style="list-style-type: none"> • Legal rights to information • Processes used to disseminate information • Timeliness and equal access • Flow: one-way or multi-directional
Culture: <ul style="list-style-type: none"> • Satisfied, striving, or aggrieved • Optimistic, pessimistic, or apathetic • Self-focused or collaborative • Open and inclusive or insular • Forward- or backward-looking • Seeking or content with existing knowledge

HOW DO WE MAKE COMMUNITIES MORE RESILIENT? APPLY THIS FRAMEWORK:

- Functions and Assets
 - Improve flexibility
 - Build redundancy, modularity
 - Accept safe failure
- People and Organizations
 - Raise awareness
 - Build capability *strategically*
 - Deepen and broaden the bench
 - Increase communication, collaboration & cooperation
- Rules
 - Ensure community involvement
 - Clarify trade-offs and decision rules
 - Improve transparency
 - Invest in the future

HB 2935 – FLOOD PROTECTION PLANNING ACT

- Introduced March 10 by Speaker ARMSTEAD and HANSHAW, AMBLER, HILL, BOGGS AND BALDWIN
- The focus is limited to flooding; calls for creation of State Flood Protection Planning Council
- The Council as proposed does not include Commerce
- Limited functionality of Council
 - Annually review the state flood protection plan
 - Update plan no less than biannually
 - Reporting to Joint Legislative Committee
 - Other coordination, outreach and education
- Critique
 - Too narrow on flooding instead of resilience
 - Lacks balance between environmental protection, economic development and social issues
 - Too focused on legislative solutions,
 - No stakeholder/community perspective
 - No mention of private sector or research needs
 - Funding for coordination, education?
- Another Alternative? A proposed Executive Order!

SUGGESTED PRINCIPLES FOR APPLYING THE FRAMEWORK

- Develop and leverage state-wide assets
- Apply Framework at the watershed level, but focus on:
 - Capacity-building in each community
 - Coordination among communities
 - Collaboration with county and relevant state and federal agencies
- Ensure resilience of critical functions
- Identify and capture quick wins
- Listen, learn, experiment, adapt, and improve

DEVELOP STATE-WIDE RESOURCES

Initiative	Likely Participants	Expected Outputs	Expected Outcomes	Contribution to Increased Resilience
Create WV Disaster Resilience Council	WV Governor's Office, WVDO, WVDEP, DHS, DOH, DoC, Conservation Agency, others	<ul style="list-style-type: none"> ➤ Council Charter ➤ Regular meeting minutes ➤ Unified WV disaster resilience principles and policies ➤ Identified state-wide priorities 	<ul style="list-style-type: none"> ➤ Clarity/consensus of disaster resilience goals and priorities ➤ Improved inter-agency coordination ➤ More effective disaster response and recovery ➤ Improved efficiency and cost-effectiveness ➤ Enhanced credibility 	<ul style="list-style-type: none"> ➤ Continuous attention to disaster resilience ➤ Proactive behavior ➤ Greater flexibility ➤ Improved response time
Leverage the 2004 WV Flood Plan and Create a Resiliency Plan that is IMMEDIATELY Actionable	WVDEP, DHS, DOH, DoC, WVNG, Conservation Agency, FEMA, local government, community, and other stakeholders	<ul style="list-style-type: none"> ➤ Improved and updated state-wide plan ➤ Newly identified resources 	<ul style="list-style-type: none"> ➤ Widely shared understanding of greatest threats and opportunities for improvement ➤ Clarity regarding actions needed to address highest priorities ➤ Defined roles and responsibilities 	<ul style="list-style-type: none"> ➤ Greater attention to systemic risks and mitigating measures ➤ Reduced disaster frequency and severity ➤ Improved responsiveness ➤ More efficient use of resources
Promote WV Development Office as business, industry and government (non-consumer) hub for disaster information resources; create new Office of Economic Resilience	WV Governor's Office, DoC/DO—populate with information from DEP, DHS, DOH, Conservation Agency, FEMA, counties, others	<ul style="list-style-type: none"> ➤ Mission Statement ➤ Web site and database ➤ Curated collections of documents, maps, lists, on-line tools, and other resources 	<ul style="list-style-type: none"> ➤ Greater community-level capacity ➤ Improved inter-agency coordination ➤ More optimal use of state-level resources ➤ Improved efficiency and cost-effectiveness ➤ More effective disaster response and recovery 	<ul style="list-style-type: none"> ➤ Enhanced local self-reliance ➤ Proactive behavior ➤ Improved responsiveness ➤ Reduced severity of impacts ➤ More rapid recovery

DEVELOP STATE-WIDE RESOURCES

Initiative	Likely Participants	Expected Outputs	Expected Outcomes	Contribution to Increased Resilience
Develop Debris Management Plan	WVNG, WVCA, DOH	<ul style="list-style-type: none"> ➤ Approved Plan ➤ Expected roles and coordination of agencies across watersheds, counties, and cities/towns 	<ul style="list-style-type: none"> ➤ Less debris in rivers and streams (steady state) ➤ More rapid clearance of debris before, during, and after storm events ➤ More effective use of state, county, and local resources ➤ Fewer road closures and delays 	<ul style="list-style-type: none"> ➤ Reduced flood severity ➤ Less property damage ➤ Fewer and shorter disaster cleanup delays ➤ More efficient use of people and equipment ➤ Lower public sector costs ➤ Less disruption to commercial activity and local movement
Develop and provide disaster resilience training through WV Association of Counties' Leadership Academy	WVDEP, WVCA, DOH, WV Association of Counties	<ul style="list-style-type: none"> ➤ Training materials ➤ Participant feedback 	<ul style="list-style-type: none"> ➤ Improved capacity at county level throughout WV ➤ More effective use of state, county, and local resources ➤ More detailed understanding of conditions across the state 	<ul style="list-style-type: none"> ➤ Enhanced local self-reliance ➤ More proactive behavior ➤ Improved responsiveness ➤ Reduced severity of impacts ➤ Improved recovery time
Engage with ~30 WV watershed associations to promote local disaster resilience planning	WV DEP, WVU Land Use and Sustainable Law Clinic	<ul style="list-style-type: none"> ➤ Watershed-level disaster resilience plans 	<ul style="list-style-type: none"> ➤ Increased local capacity in participating watersheds ➤ More effective use of state, county, and local resources ➤ More extensive collaboration within and across watersheds 	<ul style="list-style-type: none"> ➤ Enhanced local self-reliance ➤ More proactive behavior ➤ Improved responsiveness ➤ Reduced severity of impacts ➤ Improved recovery time

DEVELOP STATE-WIDE RESOURCES

Initiative	Likely Participants	Expected Outputs	Expected Outcomes	Contribution to Increased Resilience
Develop arrangements to draw upon assistance from the WV NG as a force multiplier to respond to future disaster events	WVNG, WVDEP, DOH, DoC, WVCA	<ul style="list-style-type: none"> ➤ Memorandum of Understanding ➤ Principles and guidelines for ANG assistance 	<ul style="list-style-type: none"> ➤ Improved disaster response effectiveness ➤ Greater efficiency ➤ Lower overall cost 	<ul style="list-style-type: none"> ➤ Reduced scope and severity of disaster impact ➤ Improved recovery time
Establish arrangements to utilize WV DEP contracting mechanisms to secure disaster mitigation help when needed	WVDEP, other agencies and entities	<ul style="list-style-type: none"> ➤ Memoranda of Understanding ➤ Model contract RFP/RFQ language 	<ul style="list-style-type: none"> ➤ Easier and faster access to disaster mitigation and recovery resources ➤ Improved efficiency and lower cost 	<ul style="list-style-type: none"> ➤ Reduced scope and severity of disaster impact ➤ Improved recovery time

RECOMMENDED PATH FORWARD

1. Develop state-wide resources

- Draft and issue Executive Order
 - Create State Flood Protection Planning Council (ref to HB2935)
 - Empower WVDO and the Disaster Resilience Office
 - Leverage the 2004 Flood Plan and create a Resiliency Plan that better matches the level of available resources with the concepts of redundancy, flood management, and more.
- Leverage the talents of DOC and Homeland Security
- Organize and empower small group to draft Debris Management Plan
- Engage with counties and state-wide and local nonprofits to develop disaster resilience training and planning activities
- Draft and execute MOUs/MOAs, draft RFPs, contract terms, and other documents to facilitate sharing of state personnel, contract vehicles, and other resources

RECOMMENDED PATH FORWARD

2. Identify and characterize (resilience, vulnerability) communities within two selected watersheds (Elk River, Cherry River)
3. Identify potential community representatives
4. Further develop and make refinements to plans for Phases II and III (customize and pilot test the disaster resilience framework)
 - Compile and incorporate community-level information
 - Identify additional stakeholders
 - Locate and engage with potential sponsors
 - Seek and secure funding

A black and white photograph of sand dunes, with the top of the dunes visible at the top of the slide, creating a sense of depth and movement.

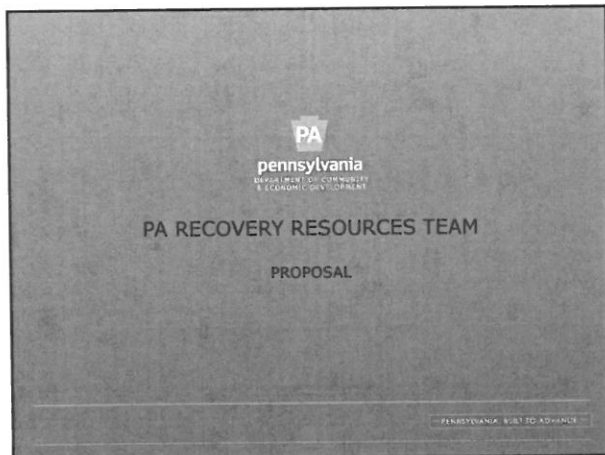
FUTURE FUNDING SOURCES

- Federal Government
 - HUD
 - FEMA
 - Other
- Foundations
 - Benedum
 - Surdna
 - Blaylock
 - Other
- Industry
- NGO

A black and white photograph of sand dunes, with the top of the dunes visible at the top of the slide, creating a sense of depth and movement.

DISCUSSION

- Reactions?
- Next steps?



National Disaster Recovery Framework

The Commonwealth of Pennsylvania must develop a central Long-Term Community Recovery synchronizing body, as per the National Disaster Recovery Framework

Still addressing needs from the 2011 disasters:

- Economic Recovery
- Community planners/grant writing
- Strategic preparedness planning
- Natural Resource/Floodplain management
- Infrastructure Projects
- Housing repair, development, planning

National Disaster Recovery Framework

Developing a central body to coordinate recovery efforts

FEMA

PENNSYLVANIA: BEST TO ADVANCE 2

Background

- Founded in 2013 as a joint effort between DCED and PEMA with support of FEMA
- To implement the National Disaster Recovery Framework
- Established via a one-time, two-year grant from the Economic Development Administration (EDA)
- The grant was for personnel costs of 3 Full Time Employees and associated operating costs (travel, equipment, etc.), as well as hosting Recovery Resource Workshops.
- The grant was originally set to expire on October 19, 2014, however EDA granted extension to the program, extending the life of the team until October 19, 2015

PENNSYLVANIA: BEST TO ADVANCE 3

Background (cont'd)

- EDA expected that the commonwealth would take up the cost of operating the RRT at that time.
- The team were all DCED employees, one member of the Team was permanently stationed at PEMA in order to foster coordination, communication and cooperation.
- The Team now has one full time employee.
- The result is a significant reduction of the incorporation of the RRT in PEMA events such as exercises, conferences and meetings. Additionally, the PEMA director has expressed concerns over the RRT being a DCED entity, while PEMA is statutorily responsible for Disaster Recovery as specified in Title 35.

PENNSYLVANIA: BEST TO ADVANCE 4

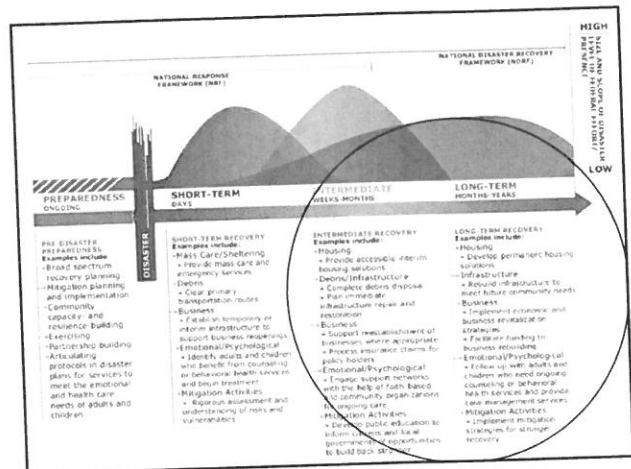
PURPOSE

Improve local communities' ability to implement disaster recovery strategies by:

- Institutionalizing a process for ongoing communication and resource coordination among partners
- Encouraging Business Development
- Identifying potential public and private sector resources
- Identifying communities' private sector organizations in-need
- Linking those in-need, with potential resources
- Facilitating coordination among resource providers
- Enhancing communication between those in-need and resources
- Fostering resilient communities

Reduce the amount of bureaucracy for recovering communities

RENT TO OWN, BUILD TO ADVANCE



PA DCED MISSION

PA DCED MISSION

- The mission of the Department of Community and Economic Development (DCED) is to **foster opportunities for businesses to grow** and for **communities to succeed and thrive** in a global economy. Our mission is to **improve the quality of life for Pennsylvania citizens** while assuring transparency and accountability in the expenditure of public funds.

PEMA Mission

- PEMA's Mission is to save lives, reduce suffering, and protect property and the environment by **leading and coordinating commonwealth agencies and resources** to prevent, protect, prepare, **respond and recover** from any man-made or natural disaster.

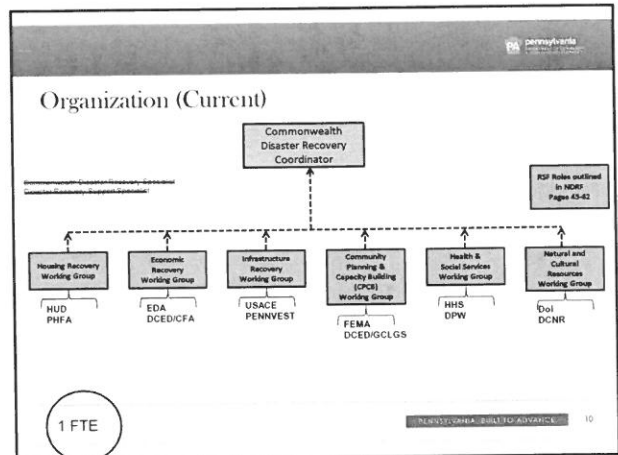
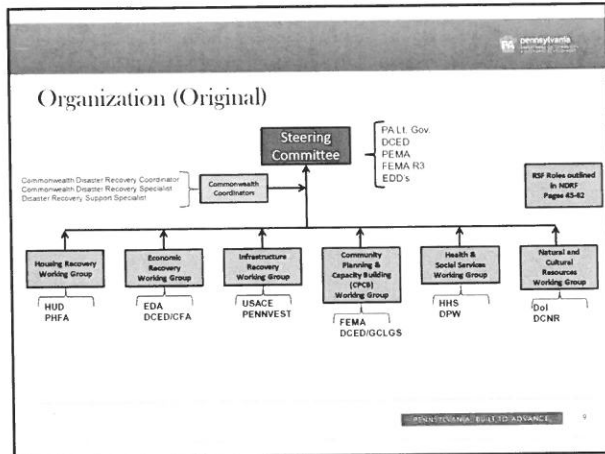
RENT TO OWN, BUILD TO ADVANCE

Recovery Resource Team Mission

The mission of the Recovery Resource Team (RRT) is to **institutionalize a process for ongoing communications and disaster recovery resource coordination** among partners.* The RRT is co-chaired by the Pennsylvania Department of Community and Economic Development (PA DCED), the Pennsylvania Emergency Management Agency (PEMA), and the Federal Emergency Management Agency (FEMA).***

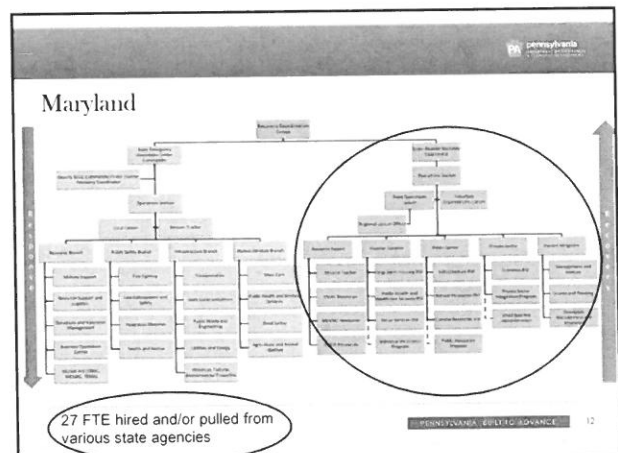
* ED000 Narrative Sections - Revised 5/14/2017, pg 2
 ** Award Number: 01-79-14191, Exhibit A, pg 1

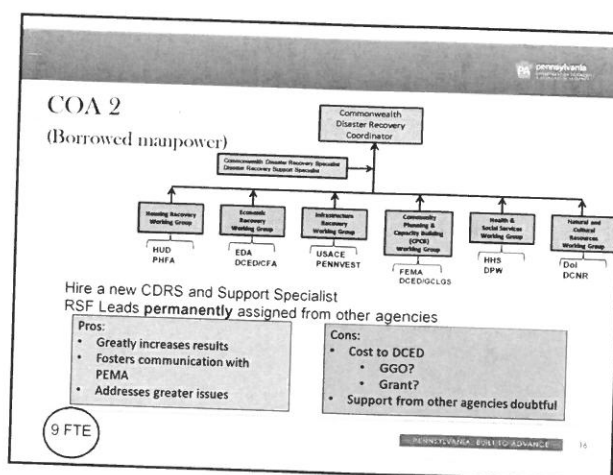
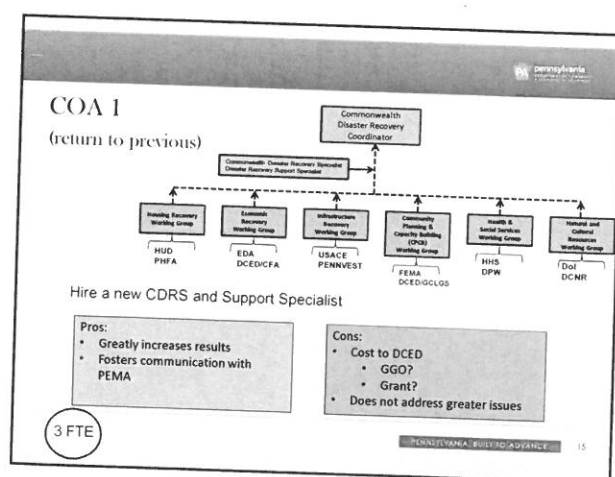
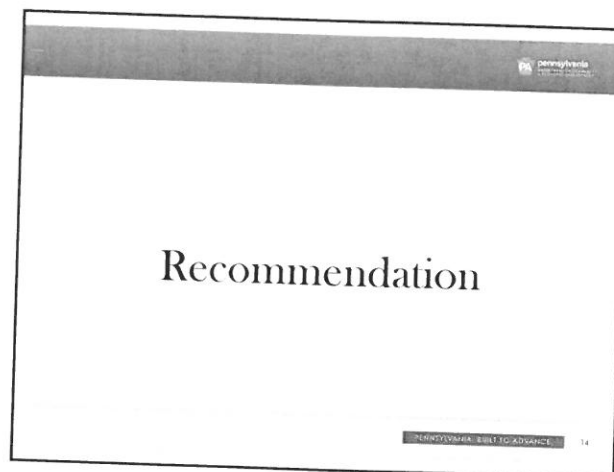
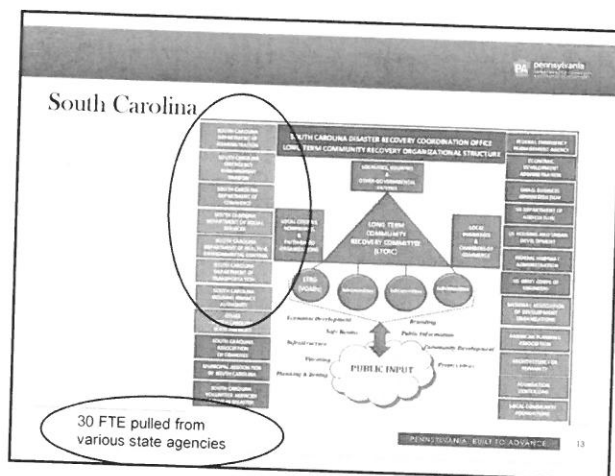
RENT TO OWN, BUILD TO ADVANCE

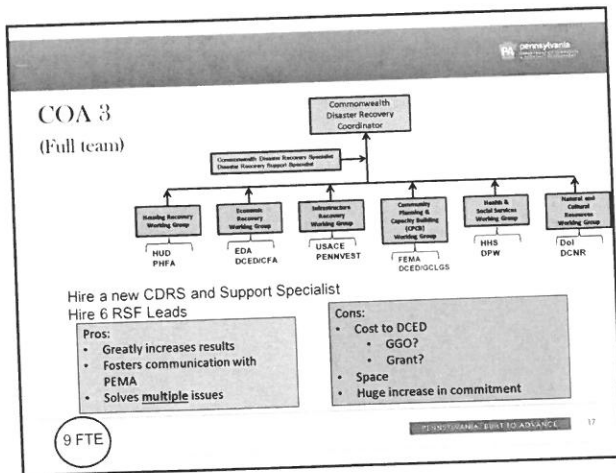


Other States' Disaster Recovery Organizations

PENNSYLVANIA: BUILD TO ADVANCE 11







Points of Contact

State Disaster Recovery Coordinator

- Jeffrey Allen, 717-214-7708, jeffallen@pa.gov

State Disaster Recovery Specialist

- Vacant, 717-346-4423.

Disaster Recovery Support Specialist

- Vacant, 717-720-1362.

PENNSYLVANIA: FIRST TO ADVANCE 18

Questions

PENNSYLVANIA: FIRST TO ADVANCE 19



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CRRO Blueprint

The CRRO supports its internal and external partners throughout all phases of disaster and long-term recovery, enabling them to effectively carry out their respective roles and responsibilities.

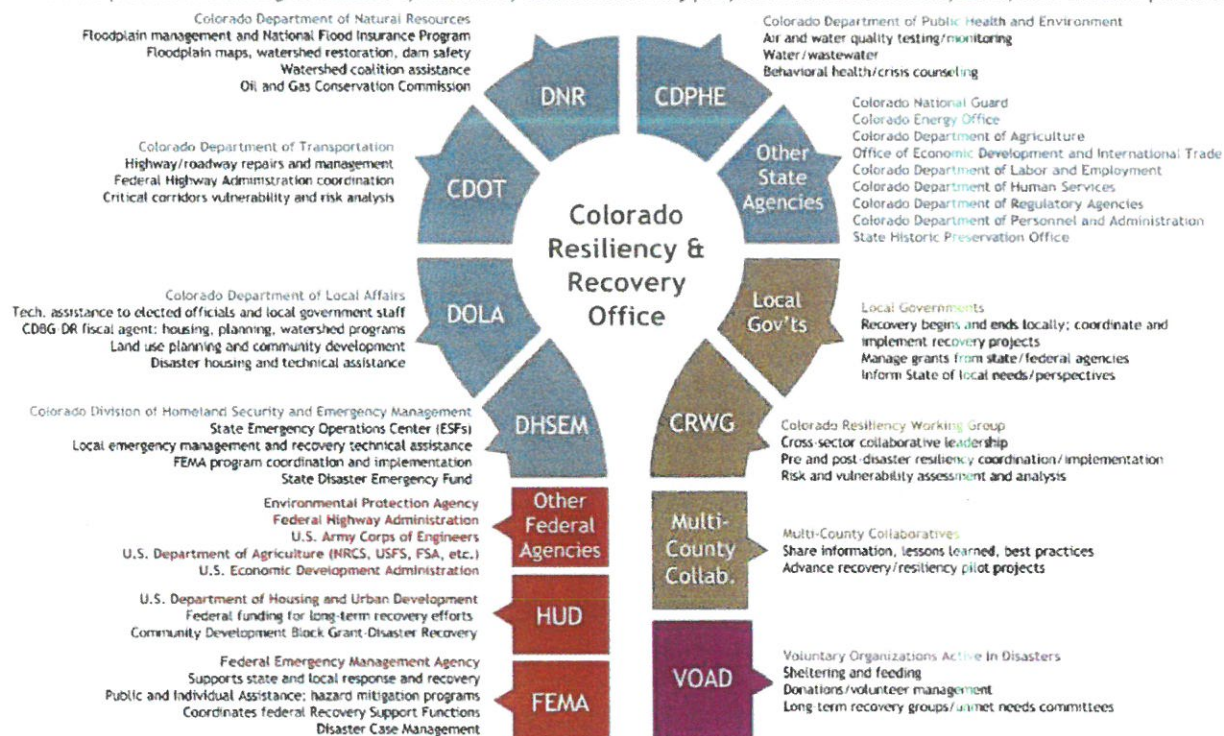


COLORADO Resiliency & Recovery Office

Governor John W. Hickenlooper

Forging relationships and leveraging partnerships across multiple agencies to effectively coordinate and facilitate Colorado's multi-faceted recovery efforts that engage and empower communities in building recovery and resiliency capacity.

The CRRO provides overarching coordination of the State of Colorado's recovery portfolio in collaboration with federal, state and local partners:



A Framework for State Leaders

Governors and their administrations can help their state be more resilient by taking action in seven key areas. This section provides more detail about those steps.

1. Put someone in charge

At the initial stages, states must ensure that their resilience efforts are coordinated across agencies and decision-making bodies. To do this, there must be a clear, central authority on state resilience with the capacity to work with and influence state agencies, local governments, and other stakeholders.

Creating an executive office of resilience or similar authority within the governor's administration sends a clear message that resilience is a state priority. Having a central coordinator for state resilience is also key to convening the many state agencies that impact resilience through their investments, programs, and infrastructure projects. To be successful, this authority must have a clearly articulated mandate from the governor and a strong leader who will make state resilience his or her top priority and responsibility. Putting someone in charge is the first step towards greater resilience.

Specific steps

1.1. Create a central authority to coordinate state's resilience efforts

There are different mechanisms that governors can use to ensure integration and coordination across agencies. Among the most effective strategies is to establish an executive office of resilience or to create a sub-cabinet focused on resilience. While these two options essentially serve the same purpose through different means, there may be specific political or organizational benefits and challenges for each. In some cases it may be beneficial to establish both an executive office and a sub-cabinet, where the office serves as the coordinator, core staff, and convener of the sub-cabinet. By establishing an executive office or sub-cabinet, the governor sends a clear message to their administration, state agency staff, and local government leaders that resilience is a statewide priority.

- Executive office of resilience

The governor can create an executive office tasked with overseeing and coordinating a state's resilience efforts. This office should:

- Serve as a central point for resilience planning;
- Coordinate resilience efforts across state agencies;
- Ensure state spending on infrastructure and public facilities supports resilience;
- Liaise with regional entities (MPOs, planning organizations, etc.) and local governments;
- Serve as the state's resilience contact for federal, NGO, and other partners; and
- Coordinate public outreach efforts.

The governor should appoint a director who has experience in resilience and a good

understanding of state agencies and the political environment. The director should have weekly meetings with the governor's policy team to provide updates on progress, receive feedback on the governor's priorities, and address any political or logistical issues. While the office should have dedicated staff, it should also have the authority to call upon staff from a number of state agencies for specific expertise as necessary. The office should also host monthly meetings for senior staff from key agencies to assess how each is meeting its resilience goals and provide guidance on addressing specific obstacles. Initially, this group of key agencies can be limited to transportation, safety/emergency management, environment, economic development, and housing/community development. As the office builds greater familiarity with the state's resilience priorities and develops a working framework for assisting state agencies in achieving their resilience goals, it should consider expanding this list to include other agencies as appropriate.

- Interagency sub-cabinet focused on resilience

Another approach governors can take to coordinate resilience efforts across agencies is to create a sub-cabinet. Establishing a sub-cabinet can send a strong message throughout the administration that resilience is of critical importance and that numerous agencies play a critical role. The sub-cabinet should:

- Serve as a central authority for resilience planning;
- Coordinate resilience efforts across state agencies; and
- Ensure state spending on infrastructure and public facilities supports resilience.

The sub-cabinet should involve cabinet members and senior leadership from agencies with a significant role in building the state's resilience. Like the executive office, this group can initially be limited to transportation, safety/emergency management, environment, economic development, and housing/community development. Upon building greater institutional expertise on state resilience, the sub-cabinet should consider expanding to include others as appropriate. Leaders from state agencies that are not formally members of the sub-cabinet should be involved on an as-needed basis. Frequent meetings are critical and should be held at least every other week, with the sub-cabinet submitting monthly progress reports to the governor's office.

The sub-cabinet should have permanent staff assigned to it, which could be shared with the executive office of resilience if one is also formed. This staff can provide support for the sub-cabinet's efforts and take on everyday roles:

- Liaise with regional entities (MPOs, planning organizations, etc.) and local governments;
- Serve as the state's resilience contact for federal, NGO, and other partners; and
- Coordinate public outreach efforts.

See Appendix, Section 1 on page 20 for more examples.

1.2. Give the entity a clear charge

The governor must give the resilience office or sub-cabinet a clear charge and mandate that provides focus and goals within the broad topic of resilience. For example, New York Governor Andrew Cuomo established the Governor's Office of Storm Recovery in 2013 with four main focus

1. Put someone in charge (focus responsibility)

Statewide resilience work requires coordination across many state agencies and decision-making bodies. To do this, there must be a clear, central authority on the issue with the capacity to work with and influence state agencies, local governments, and other stakeholders.

Putting someone in charge and creating an executive office of resilience or similar authority within a governor's administration is the first step, and sends a clear message that resilience is a state priority. A central coordinator for state resilience can convene the many state agencies that impact resilience through their investments, programs, and infrastructure projects. To be successful, this authority must have a clearly articulated mandate from the governor and a strong leader who will make state resilience his or her top priority and responsibility.

The following examples from Colorado and Oregon offer two effective ways to accomplish the above.

Creating an executive office

Case Study: Colorado Resiliency & Recovery Office

In 2013, Colorado Governor John Hickenlooper created the Colorado Recovery Office (now the Colorado Resiliency & Recovery Office [CRRO]) after unprecedented flooding in September that impacted 24 counties in the state. Parts of the state had also been impacted by record wildfires in 2012 and 2013. The CRRO executive director became a member of the governor's cabinet.

CRRO's first and foremost task coordinating the monumental flood recovery efforts in 2013. Its role has grown, however, and now also includes creating a long-term resiliency roadmap for Colorado. Today, CRRO serves a dual role coordinating the state's flood recovery efforts as well as leading the state's broader resilience work. In both roles, CRRO collaborates with interdisciplinary local, state and federal agencies and non-government partners. It is focused on the long-term needs of the State of Colorado.

In June 2014, the CRRO held a summit of state and federal leaders to identify ways to make long-term resilience part of the recovery process and beyond. Summit participants talked about what resilience meant, and how the State of Colorado could take action. As a result of the Summit, the CRRO created the Colorado Resiliency Working Group (CRWG) made up of stakeholders from government and other parties. In addition to the CRRO, the executive director (or a designated representative) from the following state agencies were named initial members of the CRWG:

- Colorado Department of Local Affairs
- Colorado Department of Natural Resources
- Colorado Department of Public Safety
- Colorado Department of Transportation
- Colorado Department of Public Health & Environment
- Colorado Department of Human Services
- Office of Economic Development & International Trade
- Colorado Energy Office
- Colorado Office of Information Technology

standards. For each project, the annual report identifies the project benefits, lead agency, supporting partners, primary sectors and other sectors benefited, funding needs, and project goals (on a quarterly basis).⁴ In addition to the annual plan, an annual report will be provided each year describing the outcomes and successes of projects.

Other successes during the first year of implementing the Framework have included creating tools for use by local communities, floodplain map updates, and beginning to address resilience in K-12 education curriculum.

Following the adoption of the Colorado Resiliency Framework in 2015, the CRRO and the CRWG have made progress in the implementation of priority actions identified in the Framework's Roadmap to Resiliency. The CRRO partnered with communities in three of Colorado's most disaster-impacted counties (Boulder, El Paso, and Larimer) to pilot a local resiliency planning process. Through collaborative work sessions, stakeholders came together in each county to develop their vision and identify goals, strategies, and actions. Partners from local, state, and federal agencies participated in the process along with the private and non-profit sectors. Each county is completing and adopting their plan following their own schedules.⁵

To advance the priority action to educate and engage, the CRRO launched the COResiliency Resource Center⁶, which includes a wide variety of resources to provide government agencies, elected officials, community organizations, the private sector, and individual resiliency champions with knowledge and resources to understand, plan for, and act on resilience. The Resource Center includes planning guidance, case studies, templates, training modules and links to a broad range of technical information from Colorado and around the United States. The Colorado Resiliency Working Group's Community Sector, led by the Colorado Department of Local Affairs, addressed the priority action to create mapping and land use tools by developing a website and guide, *Planning for Hazards: Land Use Solutions for Colorado*⁷, aimed at counties and municipalities to help them integrate Colorado-specific resilience and hazard mitigation into their local plans, codes, and standards.

Benefits of creating an executive office of resilience

Having a cabinet-level office to coordinate and lead an interagency team has allowed Colorado to convey the urgency of this issue to residents and stakeholders. The Framework, provides a vision as well as a clear path for implementation. The CRRO's continuing leadership also means that there will be a party responsible for continuing to move the Framework, a living document, forward.

This process has also allowed individuals in diverse sectors who may not have thought about resilience before to begin to understand the issues involved across disciplines.

Challenges

The CRRO's success has required staff to overcome several challenges. The resiliency process has been similar to a startup: CRRO staff needed to learn a lot quickly about resilience issues in

4 State of Colorado. (2016, April 12). "Colorado Resiliency Framework 2016 Annual Plan." Available at <https://docs.google.com/a/state.co.us/viewer?a=v&pid=sites&srcid=c3RhRGUuY28udXNBY29sb3JhZG91bml0ZWwR8Z3g6MzlwNDg5NWlxMTJiYzZkNA>.

5 <https://sites.google.com/a/state.co.us/coloradounited/resiliency/local-resiliency-initiatives>

6 <http://www.coresiliency.com/>

7 <https://www.planningforhazards.com/>

Colorado. Funding remains a challenge—the state has approximately \$2 billion in unmet resiliency and recovery needs. The CRRO's existing recovery funding comes from 30 different funding sources that must be tracked and spent in accordance with the funders' requirements.

Not every community in Colorado has been impacted by a wildfire, flooding, or other natural disaster. Communities that have escaped impact may not yet see the importance of incorporating resiliency into their planning efforts. Ongoing engagement with these communities will remain a priority moving forward.

Finally, the resiliency and recovery challenges are even more complex than the staff of the CRRO originally thought at the creation of the office. Flood recovery is anticipated to last for several more years. However, there has been a lot of creative thinking and energy at all levels of government regarding how to incorporate resilience into current and future activities. The CRRO's staff is encouraged by the level of importance many stakeholders place on resiliency planning and action.

Creating a sub-cabinet

Case Study: Oregon Resilience Task Force

On March 11, 2011, a devastating earthquake and tsunami struck Japan. Across the Pacific Ocean, leaders in Oregon quickly realized they were vulnerable to the same type of disaster.

In April that year the Oregon State Legislature passed House Resolution 3 (HR 3), which directed the Oregon Seismic Safety Policy Advisory Commission (OSSPAC) "to lead and coordinate preparation of an Oregon Resilience Plan that reviews policy options, summarizes relevant reports and studies by state agencies, and makes recommendations on policy direction to protect lives and keep commerce flowing during and after a Cascadia earthquake and tsunami."⁸

The resulting Oregon Resilience Plan was published in February 2013. It's goals are to make sure "Oregon citizens will not only be protected from life-threatening physical harm, but because of risk reduction measures and pre-disaster planning, communities will recover more quickly and with less continuing vulnerability following a Cascadia subduction zone earthquake and tsunami."⁹

To create the Plan OSSPAC created eight task groups comprising more than 150 volunteer professionals along with an Advisory Group to oversee the entire work. The eight task groups were:

- Cascadia Earthquake Scenario: Performed a review of current science to detail the likely physical effects of a magnitude 9.0 Cascadia earthquake and tsunami. The other task groups utilized this analysis when assessing the impacts on their sector.
- Business and Workforce Continuity: Assessed workplace integrity, workforce mobility, building systems performance, and customer viability to allow Oregon businesses to remain open following the scenario.

⁸ Oregon Resilience Plan, http://www.oregon.gov/OMD/OEM/osspace/docs/Oregon_Resilience_Plan_Final.pdf

⁹ The Oregon Resilience Plan—Energy. (2013, February). http://www.oregon.gov/oem/Documents/06_ORP_Energy.pdf.

Putting in place a highly skilled procurement team. Recovery procurements require a team experienced in running complex and ambiguous procurements on rapid timetables. Agencies that may have relevant content knowledge for a recovery program (e.g., housing) may not have extensive procurement experience, given the nature of their non-disaster portfolio of programs, and therefore may not be the best source of recovery procurement staff. Governments could consider looking across agencies and taking the following steps:

- Identify potential members of a procurement team for disaster recovery. For example, what agencies have robust procurement processes and can detail staff to the recovery effort?
- Quickly assign clear roles and responsibilities to the team members identified. For example, who will manage which subject areas? Who will lead the Q&A process with respondents? Who will be on which panels evaluating requests for proposal (RFPs)?
- Determine who will cover each team member's existing portfolio for the three- to six-month period following a major disaster, when recovery procurement is a near-full-time job.

On the back end of procurement, a strong contracting team should be in place to draft contracts with clear service-level agreements and penalties for nonperformance. Lastly, a strong contractor-management function will need to manage both cost and performance across all vendors.

Identifying creative existing avenues through which to bring on support. Recovery-program leaders often see their options for acquiring external support as limited to procuring a service provider either on an emergency basis or through a competitive procurement. The latter is often especially daunting, as it may require writing from scratch an RFP for a program that may be still evolving. Recovery-program managers should first ask, upon identifying a need for external support, whether there are any creative existing mechanisms through which they could acquire that support. For example, one affected government needed to scale quickly its title-search-company support to conduct eligibility reviews for its homeowner-repair program. A program manager explored several creative alternatives to new procurement, including asking whether the state's mortgage/housing-finance agency or transportation authority had prequalified or previously procured capacity.

3. Establish a strong, dedicated recovery-management organization with a dual coordination-implementation mandate and a hard-charging, performance-driven staff

One of the first tasks the chief recovery officer often confronts is to build up his or her recovery-management organization (RMO) from scratch. An effective RMO has four critical features.

Independence. In designing their recovery organizations, leaders will inevitably face the issue of whether or how the organization should share authority with existing agencies. **Making the recovery organization independent from any one executive agency can help to ensure that no single agency's functional agenda inadvertently over steers the recovery, and that recovery priorities and funding allocations are based on a whole-of-government perspective.**



Within state government, assign a champion responsible for resilience and risk management who is authorized to coordinate the work across state agencies to achieve a consistent approach, identify and advance state priorities, and ensure accountability.

Vermont needs a coordinated approach to advancing resilience across state government and all of its functions. To be successful, this coordinating function must be assigned to an entity that has adequate authority, credibility, and scope. This entity would be responsible for establishing state goals for resilience, coordinating projects and programs that cut across agencies, ensuring that data and information are shared, and providing accountability – that recommended actions are advanced. The person in this role would also serve as a form of ombudsman, improving transparency with regional and local emergency managers.

We recommend that the state identify a Chief Resiliency Officer. While we considered the Climate Cabinet and DEMHS as possible coordinating entities in this capacity, our recommendations already include substantive steps towards strengthening their core roles and our stakeholders felt that a designated Chief Resiliency Officer for resiliency coordination within the state would be most effective.

“ Right now there is no risk owner. Usually when you deal with risk you have an owner. This concept doesn't usually get applied to the public sphere, but maybe it should. The risks of climate change to Vermont need an owner who can work on mitigation strategies and direct resources toward mitigation of risk. ”

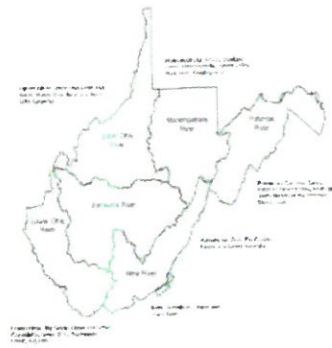
– Stakeholder



Photo credit: Gordon Miller, www.gmphoto.zenfolio.com/

A Resilient Legacy for West Virginia Stakeholder Workshop

Hosted by the WV Dep't of Environmental Protection
601 57th Street
Charleston, West Virginia
9:30AM to 4:00PM



November 29, 2016

We have several goals for this workshop:

1. Frame the scope and process for this project;
2. Review and discuss the existing bodies of work on preparedness and resiliency in the state;
3. Identify ongoing flood management efforts in and around West Virginia;
4. Present the Tyler and Moench framework for climate resiliency and
5. Identify the potential application for the Tyler and Moench framework in two watersheds and perhaps more broadly.

9:00 AM **Check in, Catching up with Old Friends**

9:30 AM **Welcoming Remarks**

Randy Huffman, West Virginia Department of Environmental Protection

9:45 AM **Introductions and Administrative**

Adam R. Saslow, Senior Facilitator, Institute for Local Innovations

Participants will self-introduce offering a few words on their own personal roles in resiliency and flood management. Mr. Saslow will introduce the ILI Team and they will spend a few moments articulating objectives including the following broad objectives:

- See the need for greater resilience and capacity within West Virginia to withstand and recover from floods and other disaster events
- Consider existing arrangements, structures, methods, and relationships that enable or promote greater disaster resilience within the State
- Note important gaps or areas requiring improvement to promote greater disaster resilience
- Inventory current and planned programs, initiatives, and activities statewide that should be considered when developing and applying a disaster resilience framework to West Virginia, and the key people and organizations involved in them

10:15 AM **Project Context**

Presented by Ira Feldman and Peter Soyka, The ILI Team

In this session, we hope to reach a shared understanding of what is giving rise to this project, why you are here and the value added you bring to the effort, to each other and to the State of West Virginia.

10:30 AM

Progress in West Virginia – This Effort Involves Leveraging All That Has Been Done

*Brian Farkas (confirmed), West Virginia Conservation Agency
Al Lisko (Invited), West Virginia Division of Homeland Security
Kelly Workman (confirmed), West Virginia Department of Commerce
Kevin Snyder (confirmed), FEMA*

Panelists will discuss the 2004 Flood Management Plan, the HUD application for the National Disaster Resilience Competition and all recent efforts by FEMA to collaborate and coordinate with various governmental entities. In this session, we hope to reach a shared understanding of the utility and limitations of the existing body of work. Panelists will each discuss:

- The types and extent to which actions were implemented
- How well they worked
- Lessons learned from their implementation
- Remaining gaps requiring attention

In this session, we hope to raise awareness among all participants of important disaster resilience and capacity-building activities underway in West Virginia, and better understand the objectives and specific goals of these activities. We will entertain Individual presentations by state government agency and other lead stakeholders describing important ongoing flood/disaster prevention/mitigation work.

11:30 AM

Roundtable Discussion of Other Initiatives and Activities Related to Resilience and Flooding

Participants will each have the opportunity to describe other efforts underway in the state so as to develop shared understandings on the range of issues and approaches represented in disaster resilience and capacity-building activities in West Virginia, and what these activities are designed to accomplish.

12:30 PM

Grab Lunch and Return to Seats

Lunch will be provided through the generosity and support of the West Virginia Department of Environmental Protection.

12:45 PM

Working Lunch: Toward a Comprehensive but Flexible Solution: The Tyler and Moench Framework

Presented by Ira Feldman and Peter Soyka, The ILI Team

In this session and while eating, ILI will seek to develop a common understanding of the analytical construct underlying the project.

- Review slide presentation outlining definitions and key features of the Framework
- Highlight key findings of the post-disaster analysis of the recent experience of Boulder, CO
- Discuss any initial thoughts regarding application of the Tyler and Moench framework to West Virginia

1:30 PM

Finding and Leveraging the Best Opportunities

Presented by Ira Feldman and Peter Soyka, The ILI Team

Here, we will identify specific issues, activities, gaps, and/or inter-relationships that suggest opportunities for improvement in the short term and are not otherwise fully addressed by existing initiatives

- Using the construct of the Tyler and Moench framework, identify important remaining needs and effective ways to fulfill them:
 - Physical systems
 - Human systems
 - Legal and cultural norms
- Identify opportunities to coordinate, strengthen, and leverage separate but complementary efforts being led or conducted by meeting participants and other stakeholders
- We hope to also identify examples of approaches that have been successfully used in West Virginia watersheds and communities to prepare for and respond to disaster events and/or improve resilience

2:45 PM

Break

3:00 PM

Determining the Best Points of Initial Application of the Framework

Facilitated by Adam R. Saslow, Senior Facilitator, Institute for Local Innovations

Participants will offer feedback and suggestions on the most appropriate watersheds and communities in which to engage and further develop and pilot test the Framework

- Review and discuss watersheds and communities provisionally selected as project test beds
- Identify and evaluate any additional candidates
- Solicit and receive suggestions for additional organizations and people that might wish to be involved in the project

3:45 PM

Next Steps

Adam R. Saslow, Senior Facilitator, Institute for Local Innovations

Here, we will confirm agreements reached and remaining issues identified during the meeting, and ensure common understanding of next steps

- Review major themes emerging from the discussion, and major points and concerns raised
- Restate decisions reached, if any
- Outline planned next steps and time lines
 - Project Team
 - Project Sponsors
 - Stakeholders

4:00 PM

Adjourn